# (Continued from Page One)

have a new device to render themselves invisible on their way to the moon? This is the type of question, surmise and supposition that one encounters in trying to demonstrate what every informed scientist admits—that the kind of cheating the Russians might do in far outer space would be too fantastically costly to be worth it, that cheating underground would be of only marginal value, and that the chances of getting caught in either case would be substantial enough to make a violator pause before risking it.

## A "Lead Balloon" in Outer Space

The opponents of a test ban are always coming up with ingenious gimmicks which make headlines and create mistrust. When sober scientists rebut them, the rebuttal is waved aside or ignored. An example is the idea put forward by the Rand Corporation that a lead screen could be hoisted into outer space, and hung on a balloon in front of an outer space test and so shut off the tell-tale gamma rays which would otherwise disclose the test to monitors on earth! This is the kind of Buck Rogers business which crops up in the speeches of Senators like Dodd. Fortunately there was an independent minded scientist from Los Alamos, Dr. Herman Hoerlin at the hearings on March 8, whose plain speaking annoyed the military. Dr. Hoerlin said he had been out in the field during the Johnston Island area for four or five months and was well acquainted with the difficulties even for "a straightforward test series" in near space. "Now," he told the Joint Committee, "when it comes to the point to launch a vehicle with a weapon, to launch also instrumentation that brings diagnostic information back, and if one wants to display in addition the equivalent of a lead balloon, one really gets into a very complicated pattern." Dr. Hoerlin said the effort involved in such a test would be "quite tremendous." Dr. Hoerlin testified (see box on page 7) that efforts at secret testing in outer space would be "extremely difficult" and "a waste of scientific manpower." But how few people will ever know of his testimony and how much weight would it have anyway with those whose first premise is that the Russians are superhuman and super-diabolic, and want a test ban agreement only to cheat on it? How combat irrational views with rational argument?

The Joint Committee operates like a rubber stamp Parliament with no opposition. At point after point one missed the absence of at least one member with the energy and inde-

#### On Site Inspection by Congressmen!

"Whereas the security of the US and the strength of free world alliances are directly affected in any consideration of arms control and/or disarmament; and

"Whereas the 18-Nation Committee on Disarmament, meeting in Geneva, is considering steps toward general and complete disarmament;

'Resolved by the Senate (the House of Representatives concurring), That it is the sense of the Congress that the American negotiating positions in arms control disarmament include these safeguards:

"(1) Complete on-the-spot inspection of all areas involved in arms control or disarmament agreements with Members of Congress included as members of the inspection team. . . . .'

—Senate Concurrent Resolution 21, by Curtis (for himself), Beall, Bennett, Dominick, Fong, Goldwater, Hruska, Jordan of Idaho, Lausche, McClellan, Mechem, Metcalf, Mundt, Randolph, Robertson, Scott, Simpson, Thurmond, Tower and Young of North Dakota.

pendence to subject witnesses to sharp inquiry from a standpoint friendly to a test ban. No one asked, for example, about the failure of any witness in four days of testimony to discuss the ease with which on February 2, 1962, the AEC immediately detected, identified and located the first (and so far as we know only) Russian underground test at their Central Asian proving grounds in Semipalatinsk. Of the hundred or more stations around the world now cooperating with us, how many detected this shot? How many identified it as nuclear? How many located it in the Central Asian Russian proving grounds? What were the various estimates of its size? Why was none of this information offered or demanded?

No questions were asked and no information offered about the "unannounced" i.e. secret tests in our own testing program. These provided an authoritative way to determine the efficiency of our policing apparatus. The whole series was monitored by a network of Coast and Geodetic seismic stations. How many of the "unannounced" tests were detected by this network, how many identified and located? One may be sure that if the results were poor, the Air Force or other official opponents of a test ban would have leaked them to the press long ago. Secretary of State Rusk admitted at a hearing chaired by Senator Humphrey March 11 that our capacity for detecting violations of a nuclear test ban are "better than can be fully disclosed."

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Rep. Chet HOLIFIELD (D. Cal): You are eliminating, in effect, any concern as to the improvements of weapons which could obtain under a 2 or 3 kiloton test in alluvium.

Dr. Frank PRESS [Pres, Seismological Society of America, Caltech]: That is right. Now, speaking as a private citizen and not an expert I would say that when I think of the possibilities that he has for weapons development under the circumstances, I do not think it is a risk to our

Rep. HOLIFIELD: May I ask you, have you been thoroughly briefed in the degree to which advancements can be made with an average of 3 kiloton power of test explosions or less?

Dr. PRESS: I have had discussions with people who know. Rep. HOLIFIELD: With weapons development people? Dr. PRESS: With weapons development people. But I would like to add that I am not an expert in this field.

# Holifield Tries to Overawe A Scientist Who Doubts Importance of Small Tests

However, I have framed an opinion on the basis of the discussions that I have had.

Chairman PASTORE (D. R.I.): You mean you have based an opinion as to what weapons development might take place?

Dr. PRESS: As to the threat to our security by a weapons development program which has to be undertaken in deep cavities, in large cavities, or in small yields under alluvium coupling.

Rep. HOLIFIELD: And you are aware of the improvements that have been made in the Nevada test series with that level of testing?

Dr. PRESS: Not as a specialist, but as a listener in discussions that have taken place.

Rep. HOLIFIELD: Unclassified discussions, or classified? Dr. PRESS: Some of these were classified.

-Joint Congr. Atomic Energy Committee, March 7.

# Humphrey's Disregarded Senate Speech Challenging Enemies of Test Ban

We present here the heart of the great speech made by Senator Hubert Humphrey in the Senate March 7 for a nuclear test ban treay. That speech received scanty coverage in the press though it included some rather sensational revelations, as may be seen from the boxes at the bottom of pages three and four. We recommend a reading of the full discussion in that day's Congressional Record to all thoughtful students of the subject. Hubert Humphrey again showed his capacity to come through in a big way on a fundamental issue.

First, it is argued that the United States should not enter into a test ban agreement because we should develop the neutron bomb, a bomb which is free from fission products.

Now what is the answer to this claim: the main interest of the United States in the neutron bomb is in preventing the Soviet Union and other countries from developing it. That is our first interest. The test ban agreement would prevent the development of such a weapon. The neutron bomb, if it can be developed, would be more useful to countries which did not already have a heavy stockpile of high cost nuclear weapons, because the neutron bomb would be cheaper. The Soviets and other countries are more likely to obtain a neutron bomb with continued testing than under an agreement, because with no inhibition on testing nuclear weapons, nuclear technology is more likely to spread. But the United States has such a large stockpile now of various kinds of nuclear bombs and nuclear warheads that there is no great military need for this weapon. And in terms of obtaining a pure neutron bomb, this is considered extremely difficult, next to impossible, to develop.

# We Don't Need A Neutron Bomb

If one is talking about a bomb with fewer fission products involved, the U.S. already has made substantial advances in this field. We do not need to test and develop a neutron bomb. It would be to the advantage of the Soviet Union, which has fewer resources than we have and fewer quantities of fissionable material than we have, to develop a neutron bomb

Second, it is argued we need to continue to test in order to perfect an anti-missile missile.

The answer: This is not correct. The performance of the

# Our Lopsided Press on the Test Ban

"Not too many months ago President Eisenhower warned this country about the power of the militaryindustrial complex in our economy and in our political life. I think that warning was well justified. I share the concern of my friend [Senator Humphrey] that the industrial-military complex in this country is such an effective agent for promoting expenditures in the defense system, in the interest, really, of keeping the arms race going, that they blanket the press with propaganda that they want to give to the American public, in the interest of why we are for tests. The other position is not given to the American public, and we are led to believe by columnist after columnist, by scientists, even by Senators, that those who seek a test ban treaty seek something that is dangerous to our security, and that no patriotic American would dare stand up for an agreement which the Senator from Minnesota and I know would be a sensible agreement for the President to propose to this body."

-Clark (D. Pa.) in the Senate, March 7.

anti-missile missile does not rest primarily on nuclear weapons tests. It rests primarily on other kinds of activities such as reliability of guidance, distance, performance, electronics. In addition, the nation sending a missile to its target has the advantage over the nation trying to erect a defense against such a missile. The efforts to build anti-missile missiles and then to build better missiles to counteract anti-missile missiles is a sure way to add another \$20 to \$25 billion to the nation's armament effort, which we will do in the absence of any agreements to curtail such weapons. I for one would rather see effective agreements to stop this spiralling arms race than to see both the US and the USSR exhaust their economies in such efforts, which will give neither an absolute military advantage.

Third. It is argued that the Soviet Union has already perfected the anti-missile missile by test. There has been no demonstration of such a capability. We have no such information. Furthermore, an anti-missile missile knocking down an incoming missile launched under ideal conditions for being intercepted is not proof of an anti-missile missile

# Humphrey Complains That A Leak Undercut U.S. Bargaining Power at Geneva

"It is not very easy to be a negotiator for the U.S. when the U.S. negotiating position appears on the front pages of the newspapers 24 hours before he even has official notice of the Government's position.

of the Government's position.

"It seems to me that somebody in this Government had better find out why there are so many leaks of highly confidential, highly sensitive information which is essential to the conduct of our negotiations with foreign powers.

"When I attended the conference at Geneva, I knew the position of the Government and I knew what modification had taken place. I had to stand before delegate after delegate and deny that I had any special information, because our Government was not ready to present it at the negotiating table. Nevertheless, newspapers in the U.S. published the U.S. position 24 hours before a single American delegate was permitted to acknowledge he had the information.

"I talked with the Italian Ambassador, the Ambassador from Sweden, the Ambassador from Brazil, the Ambassador from Canada and the Ambassador from the United Kingdom. Everyone of these Ambassadors asked me, 'Sen-

ator, we hear that your Government is now going to offer seven on-site inspections instead of 8 to 10. Is this true?' I happened to know that it was true at that hour, but my Government had not permitted me to say it was true, because we were not yet ready to expose our position at the conference table. WE WANTED TO GET SOMETHING IN RETURN BEFORE REVEALING OUR HAND. [Emphasis added.] But the story appeared the day before in the Washington Star, in the Paris edition of the New York Herald-Tribune, and in the European edition of the New York Times.

"If anyone at the White House, or the FBI, or anywhere else, should read these remarks, I hope he will seek out the professional leakers instead of chasing down every alleged leftist under every sagebrush."

—Humphrey (D. Minn.) in the Senate, March 7.

The leak to which the Senator referred first appeared in the Washington Star, often a vehicle for Air Force leaks. The effect was to stir protest in anti-test ban circles against a new 'give-away' at the expense of weakening the Government's bargaining position at Geneva.